

REMARKS

Reconsideration of this application is respectfully requested.

Claims 1-53 were filed in the application. In a preliminary amendment filed May 24, 2001, applicants canceled claims 4-8, 10-14, 20-25, 28-31, and 34-37, and added new claims 54-56. The Office withdrew claims 1, 9, 16-19, 27 and 46-56 as drawn to non-elected subject matter, leaving claims 2, 3, 15, 26, 33, and 38-45 under consideration.

With this Amendment, Applicants have amended claims 3, 33, 39-42, and 44, canceled claims 2, 15, 38, 43, and 45-56, and added new claims 57-60. Thus, claims 3, 26, 33, 39-42, 44, and 57-60 are currently pending and under consideration. Applicants have also cancelled withdrawn claims 1 and 16-18, and added new claims 61-64, which are derived from claims 1 and 16-18. As detailed below, Applicants request rejoinder for new claims 61-64.

Support for new claims 57-64 and amended claims 3, 33, 39, and 44 can be found throughout the specification, and no new matter enters by amendment.

In particular, claims 3 and 33, have been amended in compliance with the restriction requirement. Claim 39 has been amended to recite a peptide linker that "stabilizes a modified bioluminescent system *in vivo* and/or *in vitro* to allow the transfer of energy by Chemiluminescence Resonance Energy Transfer." Support for this amendment can be found, for example, in the specification at page 4, paragraph 10.

Claims 40-42 have been amended to recite a "fusion protein." Support for this amendment can be found at page 10, paragraphs 52-54. New claims 61-64 ultimately

depend from claim 44, which, as discussed below, has been placed in condition for allowance.

New claim 57 is derived from canceled claim 2, new claim 58 is derived from canceled claim 15, new claim 59 is derived from canceled claim 38, new claim 60 is derived from canceled claim 43, new claim 61 is derived from canceled claim 1, new claim 62 is derived from canceled claim 16, new claim 63 is derived from canceled claim 17, and new claim 64 is derived from canceled claim 18.

Additional support for new claim 61 can be found at page 13, paragraph 59; page 23, paragraphs 89-90, and Example 9. Additional support for new claim 62 can be found throughout the specification, for example, at page 13, paragraph 59; page 23, paragraphs 89-90, and Examples 9 and 10.

Applicants submit that these claim amendments are fully supported by the specification, do not introduce new matter or require a further search of the art, and respectfully request their entry.

Specification

The Office noted that paragraphs 97-99 and 102-104 of the application include the use of the trademarks PHOTEK, BERTHOLD, ROCHE, and RUGENE. (Office Action at page 2.) The specification has been amended as requested by the Office. Additionally, the grammar has been corrected in these paragraphs.

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Claim Objections

The Examiner objected to claims 15, 38, and 45 for depending upon a rejected base claim, stating that claims 15, 38, and 45 would be allowable if rewritten in independent form including all of the limitations of the base claim. (Office Action at page 3.) Applicants have amended independent claim 44 to incorporate all of the limitations of dependent claim 45, placing claim 44 in condition for allowance. Additionally, new claims 58 and 59 are derived from allowable claims 15 and 38, respectively, and have been amended to depend from allowable independent claim 44. Applicants thus submit that new claims 58 and 59 are also in condition for allowance.

Claim Rejections under 35 U.S.C. § 112, second paragraph

The Office rejected claim 33, and claims 39, 40 and 42 dependent thereon, under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. (Office Action at page 3.) In particular, the Office alleged that claim 33 is "redundant," because it recited a "peptide linker of at least 5 amino acids comprising. . . SEQ ID NO: 22," wherein SEQ ID NO: 22 comprises 50 amino acids.

Without acquiescing to the correctness of this rejection, Applicants have amended independent claim 33 to recite, "A peptide linker comprising the amino acid sequence of SEQ ID NO: 22", eliminating the alleged redundancy.

The Office also rejected claim 39 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. In particular, the Office contended that the language "linker has the capacity to stabilize" is indefinite, because it was unclear whether or not the linker stabilizes the modified bioluminescent system. (Office Action at page 3.) Without

acquiescing to the correctness of this rejection, Applicants have amended claim 39 to recite, "A peptide linker according to claim 33, wherein the peptide linker stabilizes a modified bioluminescent system *in vivo* and/or *in vitro* to allow the transfer of energy by Chemiluminescence Resonance Energy Transfer."

Applicants submit that the amendments to claims 33 and 39 eliminate the allegedly indefinite language, and the rejections are moot.

Claim Rejections under 35 U.S.C. § 102

The Office rejected claims 33 and 39 under 35 U.S.C. § 102(a) as being anticipated by WO 99/49041 ("Blair et al."). In particular, the Office alleges that Blair et al. teach a peptide linker comprising the amino acid residues "Ser Gly Leu Arg Ser," 5 contiguous amino acids found in SEQ ID NO: 22 of the present application (claim 33) wherein the peptide linker results in a fluorescent protein with greater stability (present claim 39). (Office Action at page 4.)

Without acquiescing to the correctness of this rejection, Applicants submit that amended claim 33 recites a peptide linker comprising SEQ ID NO: 22. SEQ ID NO: 22 comprises 50 amino acids. In contrast, Blair et al. teach only 5 contiguous amino acids of SEQ ID NO: 22. Because Blair et al. does not disclose SEQ ID NO: 22, it cannot anticipate the claim. See, e.g., MPEP § 2131.

The Office also rejected claim 33 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,833,991 ("Masucci et al."). In particular, the Office alleges that Masucci et al. teaches a peptide linker comprising at least five amino acid residues as found in SEQ ID NO: 22. (Office Action at page 5.)

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Without acquiescing to the correctness of this rejection, Applicants respectfully point out that claim 33 has been amended to recite SEQ ID NO: 22. Massuci et al. teach only 5 amino acid residues of SEQ ID NO: 22. Because Massuci et al. does not disclose SEQ ID NO: 22, it cannot anticipate the claim.

The Office rejected claim 2 under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,714,666 ("Pritchett et al."). (Office Action at page 4.) In particular, the Office alleges that Pritchett et al. teach a composition comprising apoaeguorin, which binds calcium ions and transmits measurable energy, wherein the amount of energy and quantity of calcium bound changes with the concentration of apoaeguorin. (Office Action at page 4.) Claim 2 has been canceled and replaced with claim 57. New claim 57 recites a composition that comprises the fusion protein of allowable claim 44. Applicants respectfully submit that Pritchett et al. do not teach this fusion protein, and therefore cannot anticipate new claim 57.

Finally, the Office rejected claim 44 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,492,500 ("Campbell et al."). (Office Action at page 5.) Applicants submit that claim 44 has been amended to incorporate all of the limitations of allowable claim 45, and the rejection under 35 U.S.C. § 102(e) over Campbell et al. is now moot.

Request for Rejoinder

In an Office Action mailed January 2, 2003, the Office made a restriction, in part, between Group I, claims 1 and 16-18, drawn to a method of screening *in vivo* a change in a physical, biochemical, or biological condition, and Group II, claims 2, 3, 15, 26, 33,

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and 38-52, drawn to a protein and a protein system. (Office Action, January 2, 2003, page 2.) In response, Applicants provisionally elected claims of Group II, drawn to a protein and a protein system. (Response to Restriction Requirement, page 2.)

Applicants respectfully submit that the non-elected method claims of Group I should be rejoined with the product claims of Group II. In response to *In re Ochiai* and *In re Brouwer*, the Commissioner set forth guidelines for treatment of non-elected process claims. See the Official Gazette, 1184 OG 88 (March 26, 1996). These guidelines have been incorporated into MPEP § 821.04. Under these PTO guidelines, "rejoinder practice" applies to Applicants, who have elected claims to a product over claims to a process in compliance with a Restriction Requirement. When it is established that a product claim is allowable, withdrawn process claims that depend from, or otherwise include all the limitations of, the allowable product claim must be rejoined. (MPEP § 821.04.)

Applicants submit that the claims of Group II, drawn to a protein and a protein system, are in condition for allowance. Therefore, Applicants respectfully request the rejoinder of new claims 61-64, drawn to a method using the proteins and protein systems of claims 3, 26, 33, 39-42, 44, and 57-60. Because the claims to be rejoined depend from allowable claims, they comply with the rejoinder requirements set forth by the Office.

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If there is any fee due in connection with the filing of this Amendment, please charge the fee to our Deposit Account No. 06-0916.

Respectfully submitted,

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